

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1                   **Claim 1**    (Currently amended): Method of carrying  
2       out a three phase chemical reaction under pressure that  
3       involves a gas phase and two non-gaseous phases, at least  
4       one of which is liquid, said method comprising the  
5       following steps:

6                   circulating, in a closed loop and co-currently  
7       two non-gaseous phases, in a reactor, by injection of the  
8       gas phase into the bottom of a central region of the  
9       reactor, in a way that creates an ascending circulation  
10      in said central region and a descending circulation in  
11      the annular region of the reactor, separated from the  
12      central region by a cylindrical partition;

13                 separation and recovery, in an upper region of  
14      the reactor, of the excess gas phase and a liquid  
15      fraction;

16                 separate routing of the excess gas phase and  
17      the liquid fraction into a ~~high pressure~~ separator  
18      outside the reactor; and

19                 regulation of the pressure in the reactor and  
20      the level in the ~~high pressure~~ separator, by adjustment

21 of a gas flow rate and a liquid flow rate leaving the  
22 ~~high pressure~~ separator.

1           **Claim 2**   (Original): Method according to Claim 1,  
2   in which the liquid fraction in said upper region is  
3   recovered through a lateral branch pipe positioned behind  
4   a profiled wall that inflects the circulation towards the  
5   annular region of the reactor and the liquid fraction is  
6   filtered at the inlet to said branch pipe.

1           **Claim 3**   (Currently amended): Method according to  
2   Claim 1, in which said gaseous gas and non-gaseous  
3   non-gaseous phases are cooled inside the reactor.

1           **Claim 4**   (Currently amended): Method according to  
2   Claim 1, in which said gaseous gas and non-gaseous  
3   non-gaseous phases are heated inside the reactor.

1           **Claim 5**   (Original): Method according to Claim 1,  
2   in which a reducing reaction is carried out on a liquid  
3   product under pressure using a gaseous reducing agent, in  
4   the presence of a solid catalyst.

1           **Claim 6**   (Original): Method according to Claim 5,  
2   in which the solid catalyst is periodically regenerated  
3   inside the reactor, by carrying out the following steps:

4                   - discharge of the liquid phase;  
5                   - filling the reactor with water;  
6                   - sparging with an inert gas, for a specified  
7                   time;  
8                   - emptying the water.

1               **Claim 7**    (Original): Method according to Claim 5,  
2               in which the reduction reaction carried out is the  
3               reduction of uranyl nitrate by hydrogen in the presence  
4               of platinum on a silica carrier.

1               **Claim 8**    (Withdrawn): Installation for carrying  
2               out a three phase chemical reaction under pressure, that  
3               involves a gaseous phase and two non-gaseous phases, at  
4               least one of which is liquid, said installation  
5               comprising:

6                   - a reactor including a central region and an  
7               annular region, separated by a cylindrical partition,  
8               means for injecting the gaseous phase into the bottom of  
9               the central region, to create closed loop and co-current  
10              circulation of the two non-gaseous phases, ascending in  
11              the central region and descending in the annular region;  
12              said reactor further including an upper region for the  
13              separation and recovery of the excess gas phase and a  
14              liquid fraction;

15                   - a high pressure separator outside the reactor  
16                   and connected to the upper region of the reactor, so as  
17                   to separately route the excess gas phase and the liquid  
18                   fraction into the separator; and  
19                   - means of adjusting a gas flow rate and a  
20                   liquid flow rate leaving the high pressure separator, so  
21                   as to regulate the pressure in the reactor and the level  
22                   in the high pressure separator.

1                   **Claim 9**   (Withdrawn): Installation according to  
2                   Claim 8, in which a lateral branch pipe for recovering  
3                   the liquid fraction emerges into the upper region of the  
4                   reactor, behind a profiled wall installed in said upper  
5                   region in such a way that the circulation is inflected  
6                   towards said annular region of the reactor, filtering  
7                   means being placed at the inlet to the branch pipe.

1                   **Claim 10**   (Withdrawn): Installation according to  
2                   Claim 8, in which cooling means are fitted at least to  
3                   the cylindrical partition of the reactor.

1                   **Claim 11**   (Withdrawn): Installation according to  
2                   Claim 8, in which heating means are fitted at least to  
3                   the cylindrical partition of the reactor.